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What Is claimed Is:

- 1.(Currently Amended) A method for retransmitting packets in a wireless communications network, comprising:
 - (a)receiving a retransmission request for a packet having available at least one retransmission rounds and a number of retransmissions;
 - (b)determining within a radio link protocol automatic retransmission request engine, from the at least one retransmission rounds and the number of retransmissions, retransmission parameters for the packet, the at least one retransmission rounds being estimated as a function of per packet quality of service and the number of retransmissions being estimated as a function of a wireless link quality of service;
 - (c)retransmitting the packet at the determined retransmission parameters; and
 - (d)updating the number of retransmissions.
- 2.(Original) The method as in claim 1, wherein receiving the retransmission request includes receiving a negative acknowledgement message.
- 3.(Original) The method as in claim 1, wherein determining the retransmission parameters includes determining that a packet delay margin permits more than one retransmission rounds.
- 4.(Original) The method as in claim 3, wherein retransmitting the packet includes retransmitting one instance of the packet.
- 5.(Original) The method as in claim 1, wherein determining the retransmission parameters includes determining that a packet delay margin permits only one retransmission round.
- 6.(Original) The method as in claim 5, wherein retransmitting the packet includes retransmitting the instances of the packet equal to the number of retransmissions.
- 7.(Original) The method of claim 1, further including estimating a total number of retransmissions.

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8.(Currently Amended) The method of claim 7, wherein estimating the total number of retransmissions includes considering a the wireless link quality of service and a packet loss rate.

9.(Original) A radio link protocol engine for providing retransmission parameters for a packet in response to an automatic retransmission request; comprising:

a buffer for storing retransmission parameters for a packet having a predetermined per packet quality of service, the retransmission parameters including available retransmission rounds and total number of retransmissions;

a radio link protocol automatic retransmission request engine for determining the retransmission parameters for the packet as a function of the predetermined per packet quality of service and a wireless link quality of service, where the available retransmission rounds are estimated as a function of the predetermined per packet quality of service and the total number of available retransmissions are estimated as a function of the wireless link quality of service.

10.(Canceled)

11.(Canceled)

12.(Canceled)

13.(Original) The radio link protocol engine of claim 9, wherein the radio link protocol automatic retransmission request engine includes a retransmission counter.

14.(Currently Amended) A wireless access network, comprising:

a scheduler for scheduling a packet, having a predetermined per packet quality of service, for transmission over a radio link having a predetermined wireless link quality of service;

a radio link protocol engine for providing retransmission parameters for the packet in response to an automatic retransmission request, the retransmission parameters including available retransmission rounds and total number of retransmissions, the radio link protocol engine including a buffer for storing the retransmission parameters for the packet; and

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a radio link protocol automatic retransmission request engine for determining the retransmission parameters for the packet as a function of the predetermined per packet quality of service and the predetermined wireless link quality of service, where the available retransmission rounds are estimated as a function of the predetermined per packet quality of service and the total number of available retransmissions are estimated as a function of the wireless link quality of service.

15.(Canceled)

16.(Canceled)

17.(Canceled)

18.(Original) The wireless access network of claim 14, wherein the radio link protocol engine automatic retransmission request engine includes a retransmission counter.